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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,926	01/20/2006	Cornelis Hermanus Van Berkel	NL 030870	9399
65913	7590	09/15/2008		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER DO, CHAT C	
			ART UNIT 2193	PAPER NUMBER
			NOTIFICATION DATE 09/15/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/565,926	<b>Applicant(s)</b> VAN BERKEL ET AL.	
	<b>Examiner</b> CHAT C. DO	<b>Art Unit</b> 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/20/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because Figures 1-2 have boxes without label(s). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means"

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and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the abstract should be in a separate sheet within the range of 50 to 150 words in length. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities: the original disclosure is missing appropriated headers to identify each session.

Appropriate correction is required.

### ***Claim Objections***

5. Claims 1-11 are objected to because of the following informalities:

Re claims 1-11, the applicant is advised to remove references within the parentheses for clarification purposes,

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-11 cite a device and method for composing a vector in accordance with a mathematical algorithm. However, claims 1-11 merely disclose series of steps/components for composing the vector without disclosing a practical/physical application. In addition, claims 1-10 are directed to a device but fails to disclose any specific hardware component to realize the device and claim 11 discloses a method but fails to direct to any specific hardware. Therefore, claims 1-11 are directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Erdogan et al. (U.S. 7,076,514).

Re claim 1, Erdogan et al. disclose in Figures 9-12 a device (100) arranged to compose basic-code vectors (102a, 102b up to and including 102n) into a composite-code vector (104) (e.g. abstract, output of Figure 12, and col. 18 line 60 to col. 19 line 9), the device (100) comprising: at least two weighted sum units (106a, 106b) (e.g. top and bottom portion of first set of weighted sum operation in Figure 12), each weighted sum unit being arranged to provide an intermediate-code vector which is a weighted sum of a

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plurality of the basic-code vectors (102a, 102b up to and including 102n) (e.g. col. 19 lines 17-35); an add unit (110) (e.g. second adder in Figure 12), the add unit being arranged to sum the intermediate-code vectors into the composite-code vector (104) (e.g. as summing the output of F1 and F2 in Figure 12); the weighted sum units (106a, 106b) being under the control of a first and a second configuration word (114a, 114b) (e.g. the words are the coefficients C11-C14 and C21-C24 as listed or described in col. 19 lines 17-35), wherein the first and the second configuration word (114a, 114b) are deployed to configure the operations performed by the weighted sum units (e.g. as multiplied the input vector Dx with the coefficients Cx and summed up).

Re claim 2, Erdogan et al. further disclose in Figures 9-12 a pre-processing unit (108a, 108b) is coupled to at least one of the weighted sum units (106a, 106b) and to the add unit (110), the pre-processing unit (108a, 108b) being arranged to perform additional operations on the intermediate-code vector (e.g. by the F1 and F2 in Figure 12), the pre-processing unit (108a, 108b) being under the control of a third and a fourth configuration word (116a, 116b) (e.g. by the coefficients in col. 19 lines 36-62), wherein the third and the fourth configuration word (116a, 116b) are deployed to configure the additional operations on the intermediate-code vector (e.g. by additional filtering in col. 18 lines 60 to col. 19 line 9).

Re claim 3, Erdogan et al. further disclose in Figures 9-12 a post-processing unit (112) is coupled to the add unit (110), the post-processing unit (112) being arranged to perform additional operations on the composite-code vector (104) (e.g. any operation after the second adder in Figure 12), the post-processing unit (112) being under the

control of a fifth configuration word (118), wherein the fifth configuration word (118) is deployed to configure the additional operations on the composite-code vector (e.g. col. 19 lines 1-17).

Re claim 4, Erdogan et al. further disclose in Figures 9-12 the weighted sum units (106a, 106b) are arranged to calculate a bit-wise addition of at least two basic-code vectors (102a, 102b up to and including 102n) (e.g. by the second adder in Figure 12).

Re claim 5, Erdogan et al. further disclose in Figures 9-12 the pre-processing unit (108a, 108b) is arranged to erase, repeat and reorder the elements of the intermediate-code vector (e.g. by the F1 or F2 in Figure 12).

Re claim 6, Erdogan et al. further disclose in Figures 9-12 the pre-processing unit (108a, 108b) is arranged to apply a mask on the intermediate-code vector (e.g. wherein the mask the set of coefficients in F1 and F2 in Figure 12 and col. 19 lines 35-62).

Re claim 7, Erdogan et al. further disclose in Figures 9-12 the post-processing unit (112) is arranged to perform a conditional negation of the composite-code vector (104) (e.g. col. 19 lines 1-17).

Re claim 8, Erdogan et al. further disclose in Figures 9-12 the weighted sum units (106a, 106b) and the add unit (110) are arranged to be configured during a configuration stage of the operation of the device (100) (e.g. Figure 12).

Re claim 9, Erdogan et al. further disclose in Figures 9-12 the pre-processing unit (108a, 108b) is arranged to be configured during a configuration stage of the operation of the device (100) (e.g. Figure 12 and col. 18 line 60 to col. 19 line 19).

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Re claim 10, Erdogan et al. further disclose in Figures 9-12 the post-processing unit (112) is arranged to be configured during a configuration stage of the operation of the device (100) (e.g. Figure 12).

Re claim 11, it is a method claim having similar limitations as cited in claim 1. Thus, claim 11 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 6,922,440
- b. U.S. Patent No. 6,009,447
- c. U.S. Patent No. 6,370,556
- d. U.S. Patent No. 7,076,514
- e. U.S. Patent No. 2003/0193914
- f. U.S. Patent No. 6,226,660

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAT C. DO whose telephone number is (571)272-3721. The examiner can normally be reached on Tue-Fri 9:00AM to 7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chat C. Do/  
Primary Examiner, Art Unit 2193

September 9, 2008